1059-15-49 **Petros Drineas*** (drinep@cs.rpi.edu), Rensselaer Polytechnic Institute, 110 8th Street, Troy, NY 12180. *Randomized matrix algorithms and their applications.*

Over the past decade the idea of randomly sampling a small subset of columns, rows, or elements from large matrices and then applying traditional linear algebraic techniques, such as the Singular Value Decomposition or the QR decomposition, has found applications in many fundamental problems of numerical linear algebra, including the low-rank matrix approximation problem and regression problems. In this talk we will present an overview of this area as well as some recent developments on the Column Subset Selection Problem (CSSP) and its applications. (Received February 10, 2010)